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| 09/653,681 | 09/01/2000 | Akio Fukushima | 16869P-012100US | 5326 |

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TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

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| EXAMINER |
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VENT, JAMIE J

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| ART UNIT | PAPER NUMBER |
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2621

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 01/03/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/653,681

Applicant(s)

FUKUSHIMA ET AL.

Examiner

Jamie Vent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 29-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 16, 2006 has been entered.

Response to Arguments

Applicant's arguments filed October 25, 2006 have been fully considered but they are not persuasive. On page 2 applicant argues that Koto in view of Copeland fail to disclose, suggest, or teach the following limitation, "playback circuitry" as recited in Claim 1. It is noted in Koto discloses in Column 10 Lines 62+ a system that provides information to playing back the data that is processed into the system. Furthermore, it is noted that the playback circuitry disclosed by Koto is similar to the present application Figure 1 wherein various part (i.e., watermark detector, decoder, playback circuits) all make up the entire system for reproducing, recording and playing back information. Furthermore, the examiner asks applicant to further explain the difference of the playback circuitry claimed and shown in Figure 1 of the application and that of Koto et al disclosed playback system. Although, all of applicants points are understood the examiner can not agree and therefore the rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,7-12,14,15,18,19,20,21, 30, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable by Koto et al (US 6,671,376) in view of Copeland (US 5,659,613).

[claims 1 & 18]

In regard to Claims 1 and 18, Koto et al discloses an apparatus for playing back data stored on an information recording medium (Column 6 Lines 45+ describes playing back the information from the recording medium), the data having audio information, visual information, or audio-visual information the data containing watermark, the apparatus comprising:

- Reproduction processing circuit configured to receive the information that is stored on the information recording medium produce the data (Figure 1 shows the reproduction process circuit as described in Column 6 Lines 45+ the storing of information on the recording medium) and a playback circuitry comprising:
 - Data store configured to receive at least some of the first data (Figure 7 shows RAM 38 used as a data store for the input of coded data from lines 46 and 47 as described in Column 13 Lines 58+);
 - Detecting circuit coupled to the data store and configured to process data contained therein to produce a detection result, the detection result being based at least on the

- second data (Figure 7 address generator 36 generates the readout address thereby detecting the input and output of the memory as stated in Column 14 Lines 8-23); and
- o Control circuit configured to selectively output the first data based on the detection result (Figure 7 address generator selects the output from the memory to be outputted into the system as further described in Column 14 Lines 8-43); however fails to specifically disclose a playback circuitry.

Copeland et al discloses a system wherein information is stored through a playback device as recited in Column 5 Lines 34+. The ability to incorporate a playback system allows for a complete multimedia system. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the data store system, as disclosed by Koto et al, and further incorporate a system that has a playback capability of the copyright information, as recited by Copeland et al.

[claim 7]

In regard to Claim 7, Koto et al discloses an apparatus wherein a data bus coupled only between the detection circuit and the control circuit, wherein the detection circuit produces a signal representative of the detection result, the signal being sent to the control circuit via the data bus (Figure 7 shows the coupling of the detection circuit/ reproduced signal discrimination circuit 35 and the control circuit/ system controller 36 is connected via a data bus to the data store 38).

[claims 14 & 15]

In regard to Claims 14 and 15, Koto et al disclose an apparatus wherein the data store receives at least some of the data at a data rate at which the reproduction processing circuit produces the first data and is configured to output data contained therein at the same time it receives at least some of the first data (Column 13 Lines 58+ describes the rate at which the video signal is read out into the picture memory / data store 38).

[claim 19]

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In regard to Claim 19, Koto et al discloses a method for accessing data having audio information, visual information, or audio-visual information, the data containing watermark, the method comprising:

- receiving the data from a data source (Figure 1 shows the receiving of data from an input means 111);
- storing the data in a data store (Figure 7 shows the storage of the data in the data store 38);
- producing a detection result by processing data in the data store, the detection result based at least on the data (Figure 7 shows the detection result from the pattern generator and address generator which detects the processed data as described in Column 14 Lines 9-36); and
- selectively outputting the data based on the detection result (Column 14 Lines 36-43 describes the selection of outputting the data based on the detection result).

[claim 20]

In regard to Claim 20, Koto et al discloses a method wherein selectively outputting is further based on the type of data source (Column 14 Lines 37-65 describes the selection of output based on the readout of the coded data based on the data source)

[claim 21]

In regard to Claim 21, Koto et al discloses an apparatus for playing back data having audio information, visual information, or audio-visual information, the data containing watermark, the apparatus comprising:

- first means for providing the data from a data source (Figure 7 shows the receiving of data from a data source in lines 41 and 42);
- second means, coupled to the first means, for storing at least some of the first data (Figure 7 shows the storage of data into the data store 38);
- third means for producing a detection result, including means for processing data stored in the second means (Figure 7 shows the detection of the processing of data from the data store through lines 46 and 47); and

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- fourth means operatively coupled to the third means, for outputting the first data based on the detection circuit (Figure 7 shows the output of the data in line 44 which based on the detection circuit).

[claims 30, 31,& 32]

In regard to Claim 30, 31, and 32 Koto et al discloses the watermark represents copyright protection information (Column 1 Lines 35-58 describes the watermarking and its relation to copyright protection).

[claims 8, 9, 10, 11, & 12]

In regard to Claims 8, 9, 10, 11, and 12 Yamagata et al discloses an reproducing apparatus with a detection circuit for detection of watermarks; however, lacks the detection circuit to be configured to do the following: encode the signal using a decryption key, exchange of authentication data between detection circuit and control circuit, encoding of the authentication data and producing signals when process is completed. Copeland et al discloses an apparatus for copy protecting various recording mediums wherein it has a detection circuit which is further configured to do the following:

- Produces a signal representative of the detection result, the detection circuit further configured to encode the signal using a decryption key, the control circuit further configured to receive the encoded signal and to decode the signal using the decryption key (Column 3 Lines 5-10 discuss the production of the signal that is representative of the detection results while Column 4 Lines 63+ describe the use of decryption for the encoded signal);
- Produces a signal representative of the detection result, wherein the detection circuit and the control circuit are further configured to exchange authentication data with each other, and wherein the detection circuit is further configured to deliver the signal to the control circuit when the detection circuit makes a positive determination that the control circuit is permitted (Column 4 lines 63+ describe the adding of the signal that represents the detection result “adding a video

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finger print signal to the input video..". Furthermore it is described that the detection circuit and control circuit exchange the authentication signal as described in Column 5 Lines 34-53);

- Configured to encode the signal using the authentication data, and the control circuit is further configured to receive the encoded signal and to decode the signal using the authentication data (Figure 1 shows the authenticating signal generator 24 being used to encode the signal which is sent to the disc mastering device 16. The process is further described in Column 6 Lines 48-54);
- Produces a first/second signal when processing of data in the data store produces the detection result a first/second predetermined number of times in succession, the control circuit selectively outputting the first data in response to the first and second signals (Column 5 Lines 34-59 describe the producing of signals while storing one field and subtracting the other field from the second field. By subtracting two opposites the Video Finger Print Signals add and the video signal subtracts out which is integrated over a period of time which thereby produces a detection result for the first and second signals).

Therefore it would be obvious to one skilled in the art at the time of the invention to use the reproducing apparatus with detecting circuit, as disclosed by Koto et al, and incorporate a more detailed detection circuit which encode the signal using a decryption key and wherein the detection circuit and the control circuit are further configured to exchange authentication data with each other, as disclosed by Copeland et al. The addition of these elements would copy protect the data by giving it a video finger print and thereby allow the embedding of data not to deteriorate thereby allowing the embedded information to remain effective.

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Claims 2,3,4,5,6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koto et al (US 6,671,376) in view of Copeland (US 5,659,613) in further view of Fujinami et al (US 6,192,189).

[claims 2, 4, & 5]

In regard to Claims 2, 4, and 5, Koto et al in view of Copeland, discloses a reproducing apparatus but lacks the following:

- a data selection circuit configured to select a first subset (I-picture) of the data, the data selection circuit coupled to deliver the data subset (I-picture) to the data store, wherein the detecting circuit processes the first subset (I-picture);
- produce a signal indicating the completion of processing of the first subset (I-picture), wherein the selection circuit selects, in response to the signal, a second data subset of the first data, and wherein the second data subset replaces the first subset (I-picture);

Fujinami et al discloses a data recording method and apparatus (Figure 1) in which the apparatus has an entry point detection circuit 31 which selects the entry point/I-picture before sending into the apparatus data store in a form of the code buffer 4 wherein the I-picture is sent to be processed by the detecting circuit/controller 8, as described in Column 7 Lines 54+. Fujinami et al further discloses the entry point generating signal generates a signal when the process is completed as described in Column 8 Lines 6-14 describes the generation of the signal as well as the selection of a second subset of data as seen in Figure 1 the selection between the various code buffers through points E1, E2, E3, E4, and E5 provide the selection of additional data from the stored contents in the code buffers as instructed by the entry point detection circuit 31 via the controller 8.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to use the reproducing apparatus as disclosed by Koto et al in view of Copeland, and incorporate a data selection circuit for selecting the first data subset for storage, display, or editing of the data, as disclosed by Fujinami et al, which allows for more control of over the data for reproducing functions.

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[claim 3]

In regard to Claim 3, Koto et al fails to disclose an apparatus wherein the capacity of the data store is equal to or greater than the maximum size of the first data subset. The examiner takes official notice that it is well known in the art that buffer size is set an amount with the processed data, such as I-frame, for proper decoding. It would be obvious to one skilled in the art at the time of the invention for Koto et al to set the capacity of the data store to be equal or greater than the maximum size of the first I-frame, as it is well known a data store with the proper size for data allows for proper decoding.

[claims 6 & 13]

In regard to Claims 6 and 13, Koto et al discloses a reproducing apparatus with subset of data; however, fails to fails to disclose discloses an apparatus wherein the first data is an ISO-MPEG 2 formatted data stream, and wherein the first data subset is an I-picture. Fujinami et al discloses a system where the first data is ISO-MPEG 2 formatted data stream (Column 8 Line 63) and the first data subset is an I-picture (Column 8 Line 7). Therefore, it would be obvious to one skilled in the art at the time of the invention to disclose the first data to be an ISO-MPEG 2 formatted data stream as well as the first data subset to be an I-picture as disclosed by Fujinami et al, as it is well known in the art for data streams to adhere to the MPEG standard as well as data streams containing an I-picture.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koto et al (US 6,671,376) in view of Copeland (US 5,659,613) in further view of Yamagata et al (US 5,956,460).

[claim 16]

In regard to Claim 16, Koto et al disclose an apparatus wherein the data store receives a subset at data rate equal to a data rate at which the reproduction processing circuit produces the data; however fails to disclose that the detecting circuit is configured to produce a signal indicating a second data raw and to output the data contained therein at the second data rate in response to the signal. Yamagata et al disclose

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in Column 9 Lines 65-68 and Column 10 Lines 1-12 that the time-base compression rate of the audio and video signals and at which the reproduction circuit produces the data as well as the detecting circuit producing the second data in response to the signal that is detected and sent out to the system to allow for communication to the system that the signal has been detected. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a data store that receives a subset of data at a set data rate and incorporate that a signal is outputted to disclose the detection of the watermark, as disclosed by Yamagata et al, to allow for communication throughout the system.

[claim 17]

In regard to Claim 17, Koto et al disclose an apparatus wherein the detecting circuit is configured to receive data contained in the data store; however fails to disclose that the received data is received at a third data rate and process the data to produce a detection result at a different data rate, wherein the data rates are equal to or greater than the third data rate. Yamagata et al discloses in Column 10 Line 23-30 the demodulation of data wherein the flag is detected on the basis of a pulse signal which is sent to the timing signal generating circuit thereby the circuit forms timing pulse signal on the bases of the detection signal and sends it to the control circuit. The process of receiving the data from the memory and producing the data is all done within the data rate established by the elements described above and thereby making various data rates and meeting the limitations of third and fourth data rates. By incorporating into the system a data store that can receive various data rates allows for the system to handle various inputted data. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a detecting circuit for detection of watermarks, as disclosed by Koto et al, and incorporate a receiving device that can process various data rates, as disclosed by Yamagata et al.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koto et al (US 6,671,376) in view of Copeland (US 5,659,613) in further view of Hashimoto (US 6,826,289).

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[claim 29]

In regard to Claim 29, Koto et al discloses an apparatus for playing back data containing a watermark, as previously disclosed in Claim 1; however, fails to disclose the additional limitations:

- a reproduction control circuit configured to control the reproduction of the data, depending upon a result of the detection of the watermark by the detecting circuit
- wherein the data store is shared by the reproduction processing circuit and the detecting circuit.

Hashimoto discloses a system for detecting watermark material wherein the watermark is detected as seen in Figure 2 as the attribute of the watermark is detected. Furthermore, as seen in Figure 4 the control circuit determines the watermark to be shared out of the data store 301 and 302 based on the result detected by the reproduction control circuit/attribute detection circuit, allowing the system to control the detection result based on the data being reproduced for the watermark. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to have a system of playing back data containing a watermark and incorporate a reproduction control circuit that depends on the result of the watermark if the data was to be stored, changed, or outputted, as disclosed by Hashimoto, which would allow the system to detect and process a watermark.

Contact Fax Information

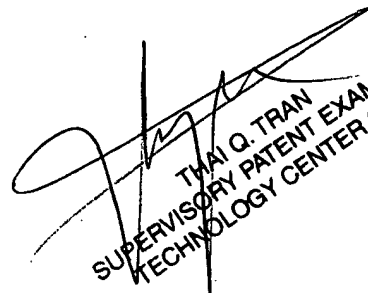
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jamie Vent



THAI Q. TRAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600